

Amendments to the Specification:

Please replace the originally filed Abstract of the Disclosure with the following amended Abstract of the Disclosure:

A1
A system and method for improving the performance of digital filters is ~~disclosed~~. The data bandwidth and spectral control are improved by adaptively selecting ramp-up and ramp-down symbols based on the actual filtered data. Thus, the energy in the truncated tail of the filter is minimized for a given filter design. The invention is of particular utility in systems that filters intermittent data streams, thus requiring the filter to energize and deenergize repeatedly.

Please replace the paragraph on originally filed page 19 that included lines 8 through 12, which is paragraph [0053] in the published application (No. US2002/0136288 A1), with the following amended paragraph:

A2
[0053] The assignee of the present invention has already filed a co-pending patent application for an improved Nyquist filter design. The application is serial number 09/302,078 ~~09/307,078~~ and entitled IMPROVED NYQUIST FILTER AND METHOD, which was filed in the US Patent Office on April 28, 1999, the contents of which are hereby incorporated by reference thereto.

Please replace the paragraph on originally filed page 14 that included lines 1 through 21, which is paragraph [0040] in the published application (No. US2002/0136288 A1), with the following amended paragraph:

*Not
return*

[0040] Mapping circuit 70 produces two digital outputs for the in-phase and quadrature-phase inputs of the QAM modulator 76, which are coupled to a pair of Nyquist filters 72 and 74. The Nyquist filters are implemented as 65-tap finite impulse response (hereinafter 'FIR') filters in a DSP 51 in the preferred embodiment. Actually, since a Nyquist filter impulse response is used to reduce inter-symbol interference at the output of the modulator 76, the filters 72 and 74 generate a square-root Nyquist response output, accomplished mathematically in the DSP 51. In preparation to modulation in the analog domain, the digital signals output by the square-root Nyquist filters 72 and 74 are converted to the analog domain by digital to analog converters 71 and 73 respectively. *A3* These signals are multiplied in the modulator 76 to produce the desired Nyquist filter response characteristics. Within the modulator 76 is an intermediate frequency (hereinafter 'IF') reference oscillator 78 that drives a first mixer 82. The filtered signal from Nyquist filter 72 is thus mixed with the IF in mixer 82. The IF oscillator 78 is also coupled through a 90° phase shift circuit 80, which in turn couples to the second mixer 84. The output of the second Nyquist filter 74 is mixed with the phase-shifted IF signal in mixer 84. The two modulated IF signals are combined in adder 86 and output as a QAM modulated IF signal from modulator 76. Finally, the QAM modulated IF signal is mixed with a signal from a radio frequency (hereinafter 'RF') oscillator 90 in mixer 88, which outputs the QAM modulated RF carrier. The RF carrier is coupled to the receiver circuit 60 via channel 92. In the preferred embodiment, the channel 92 is via radio wave propagation.